Amendments to the Claims:

This listing of the claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1-9 (Cancelled)

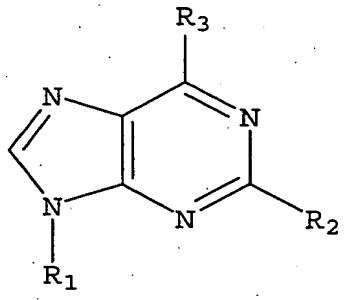
10 (Currently Amended). A method for therapeutic treatment~~,~~ to induce G-CSF production or secretion in ~~comprising administering to~~ a subject in need thereof, ~~an effective amount of an active ingredient for achieving a therapeutic effect, the therapeutic effect comprises induction of~~ comprising administering to the subject an amount of an A3-selective adenosine A3 receptor agonist in a manner such that it exerts its prime effect through the adenosine A3 receptor, the amount being effective to selectively agonize the adenosine A3 receptor so as to induce G-CSF production or secretion~~, and said active ingredient selected from the group consisting of an adenosine A3 receptor agonist (A3RAg), an A1 adenosine receptor agonist (A1RAg) and a combination of an A3RAg and an A1RAg~~.

11 (Cancelled)

12 (Currently Amended). A method according to Claim ~~11~~10, wherein the drug is administered orally.

13-14 (Cancelled)

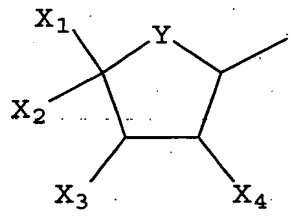
15 (Currently Amended). A method according to Claim ~~11~~10, wherein said active ingredient is a nucleotide derivative of the following general formula (I):



(I)

wherein

- R_1 is C_1-C_{10} alkyl, C_1-C_{10} hydroxyalkyl, C_1-C_{10} carboxyalkyl or C_1-C_{10} cyanoalkyl or a group of the following general formula (II):



(II)

in which:

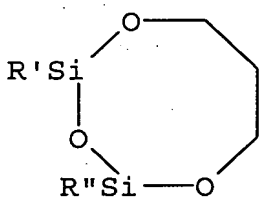
- Y is an oxygen~~,~~ or sulfur ~~of carbon atoms~~atom or CH_2;

- X_1 is H, C_1-C_{10} alkyl, $R^aR^bNC(=O)$- or HOR^c-, wherein R^a and R^b may be the same or different and are selected from the group consisting of hydrogen, C_1-C_{10} alkyl, amino, C_1-C_{10} haloalkyl, C_1-C_{10} aminoalkyl, C_1-C_{10} BOC-aminoalkyl, and C_3-C_{10} cycloalkyl or are joined together to form a heterocyclic ring

containing two to five carbon atoms, and R^c is selected from the group consisting of C_1-C_{10} alkyl, amino, C_1-C_{10} haloalkyl, C_1-C_{10} aminoalkyl, C_1-C_{10} BOC-aminoalkyl, and C_3-C_{10} cycloalkyl;

- X_2 is H, hydroxyl, C_1-C_{10} alkylamino, C_1-C_{10} alkylamido or C_1-C_{10} hydroxyalkyl;

- X_3 and X_4 each independently are hydrogen, hydroxyl, amino, amido, azido, halo, alkyl, alkoxy, carboxy, nitrilo, nitro, trifluoro, aryl, alkaryl, thio, thioester, thioether, -OCOPh, -OC(=S)OPh or both X_3 and X_4 are oxygen connected to >C=S to form a 5-membered ring, or X_2 and X_3 form the ring of formula (III):



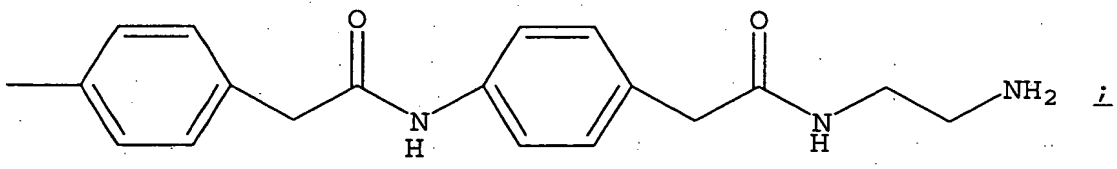
(III)

where R' and R'' are independently C_1-C_{10} alkyl;

- R_2 is selected from the group consisting of hydrogen, halo, C_1-C_{10} alkylether, amino, hydrazido, C_1-C_{10} alkylamino, C_1-C_{10} alkoxy, C_1-C_{10} thioalkoxy, pyridylthio, C_2-C_{10} alkenyl; C_2-C_{10} alkynyl, thio, and C_1-C_{10} alkylthio; and

- R_3 is a $-NR_4R_5$ group with R_4 being hydrogen, ~~or a group selected from~~ alkyl, substituted alkyl or aryl-NH-C(Z)-, with Z being O, S, or NR^a, ~~with R^a having the above meanings, and~~ ~~And R_5, where~~, when R_4 is hydrogen, ~~is~~ R_5 being selected

from the group consisting of R- and S-1-phenylethyl, benzyl, phenylethyl or anilide groups, each such group being unsubstituted or substituted in one or more positions with a substituent selected from the group consisting of C_1-C_{10} alkyl, amino, halo, C_1-C_{10} haloalkyl, nitro, hydroxyl, ~~acetoamido~~acetamido, C_1-C_{10} alkoxy, and sulfonic acid or a salt thereof; or ~~R_4~~ R_5 ~~is~~ being benzodioxanemethyl, fururyl, L-propylalanylaminobenzyl, β-alanylaminobenzyl, T-BOC-β-alanylaminobenzyl, phenylamino, carbamoyl, phenoxy or C_1-C_{10} cycloalkyl; or R_5 ~~is~~ being a group of the following formula:

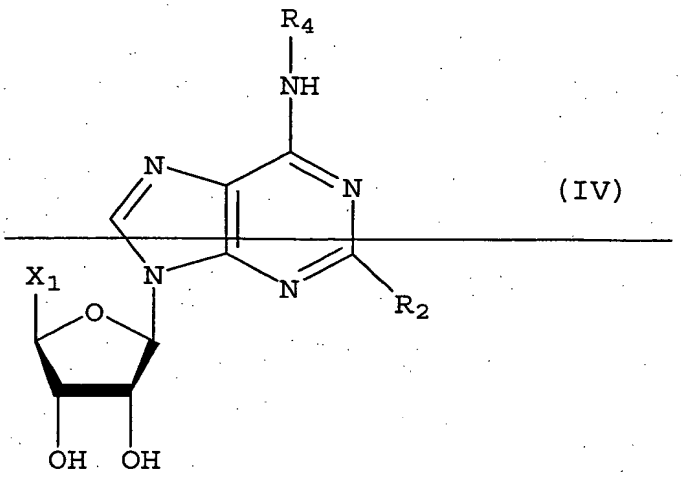


~~or a suitable salt of the compound defined above, e.g., a triethylammonium salt thereof; or~~

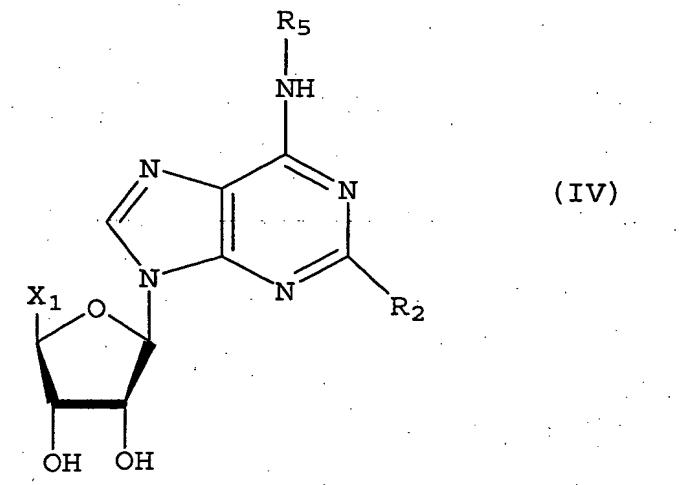
or, when R_4 is ~~a group selected from~~ alkyl, substituted alkyl, or aryl-NH-C(Z)-, then~~, R_4~~ R_5 being ~~is~~ selected from the group consisting of substituted or unsubstituted heteroaryl-NR^a-C(Z), heteroaryl-C(Z)-, alkaryl-NR^a-C(Z)-, alkaryl-C(Z)-, aryl-NR-C(Z)- and aryl-C(Z); ~~wherein Z having the above defined meanings~~

or a suitable salt of the compound defined above.

16 (Currently Amended). A method according to Claim 15, wherein said active ingredient is a nucleoside derivative of the general formula (IV):



(IV)



(IV)

in which X_1, R_2 and ~~R_4~~ R_5 are as defined in Claim 15.

17 (Original). A method according to Claim 16, wherein said active ingredient is an N^6-benzyladenosine-5'-uronamide.

18 (Currently Amended). A method according to Claim 17, wherein said active ingredient is selected from the group consisting of N^6-2-(4-aminophenyl)ethyladenosine (APNEA), N^6-(4-amino-3-iodobenzyl)adenosine-5'-(N-methyluronamide) (AB-MECA) and 1-deoxy-1-{6-[({3-iodophenyl}methyl)amino]-9H-purine-9-yl}-N-methyl-β-D-ribofuranuronamide (IB-MECA) and 2-chloro-N^6-(~~2~~3-iodobenzyl)adenosine-5'-N-~~methly-uronamide~~methyluronamide (Cl-IB-MECA).

19-40 (Cancelled)

41 (Currently Amended). A method for inhibiting abnormal cell ~~growth~~ proliferation in a subject in need thereof, comprising administering to the subject ~~a therapeutically effective~~ an amount of ~~an active ingredient selected from the group consisting of~~ an A3-selective adenosine A3 receptor agonist (A3RAg), ~~an adenosine A2 receptor agonist (A2RAg) and a combination of A3RAg and A2RAg~~ in a manner such that it exerts is prime effect through the adenosine A3 receptor, the amount being effective to selectively inhibit abnormal cell proliferation.

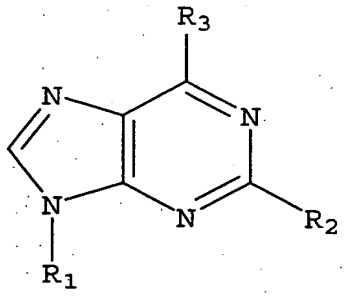
42 (Original). A method according to Claim 41, for inhibiting growth or proliferation of tumor cells.

43 (Cancelled)

44 (Currently Amended). A method according to Claim ~~43~~41, wherein the drug is administered orally.

45 (Original). A method according to Claim 41, wherein the drug is administered in combination with a chemotherapeutic drug.

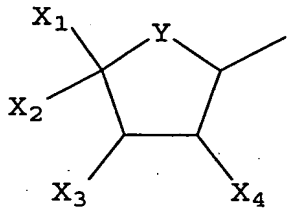
46 (Currently Amended). A method according to Claim 45, wherein said active ingredient is a nucleotide derivative of the following general formula (I):



(I)

wherein

- R_1 is C_1-C_{10} alkyl, C_1-C_{10} hydroxyalkyl, C_1-C_{10} carboxyalkyl or C_1-C_{10} cyanoalkyl or a group of the following general formula (II):



(II)

in which:

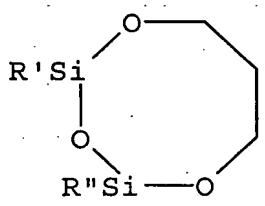
- Y is an oxygen~~,~~ or sulfur ~~of carbon atoms~~atom or CH_2;

- X_1 is H, C_1-C_{10} alkyl, $R^aR^bNC(=O)$- or HOR^c-, wherein R^a and R^b may be the same or different and are selected from

the group consisting of hydrogen, C_1-C_{10} alkyl, amino, C_1-C_{10} haloalkyl, C_1-C_{10} aminoalkyl, C_1-C_{10} BOC-aminoalkyl, and C_3-C_{10} cycloalkyl or are joined together to form a heterocyclic ring containing two to five carbon atoms, and R^c is selected from the group consisting of C_1-C_{10} alkyl, amino, C_1-C_{10} haloalkyl, C_1-C_{10} aminoalkyl, C_1-C_{10} BOC-aminoalkyl, and C_3-C_{10} cycloalkyl;

- X_2 is H, hydroxyl, C_1-C_{10} alkylamino, C_1-C_{10} alkylamido or C_1-C_{10} hydroxyalkyl;

- X_3 and X_4 each independently are hydrogen, hydroxyl, amino, amido, azido, halo, alkyl, alkoxy, carboxy, nitrilo, nitro, trifluoro, aryl, alkaryl, thio, thioester, thioether, -OCOPh, -OC(=S)OPh or both X_3 and X_4 are oxygen connected to >C=S to form a 5-membered ring, or X_2 and X_3 form the ring of formula (III):



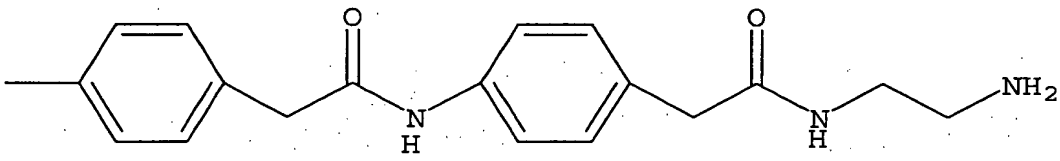
(III)

where R' and R'' are independently C_1-C_{10} alkyl;

- R_2 is selected from the group consisting of hydrogen, halo, C_1-C_{10} alkylether, amino, hydrazido, C_1-C_{10} alkylamino, C_1-C_{10} alkoxy, C_1-C_{10} thioalkoxy, pyridylthio, C_2-C_{10} alkenyl; C_2-C_{10} alkynyl, thio, and C_1-C_{10} alkylthio; and

- R_3 is a $-NR_4R_5$ group with R_4 being hydrogen, ~~or a group selected from~~ alkyl, substituted alkyl or aryl-NH-C(Z)-, with Z being O, S, or NR^a, ~~with R^a having the above meanings,~~ and,

~~And R_5~~ when R_4 is hydrogen, R_5 ~~is~~ being selected from the group consisting of R- and S-1-phenylethyl, benzyl, phenylethyl or anilide groups, each said group being unsubstituted or substituted in one or more positions with a substituent selected from the group consisting of C_1-C_{10} alkyl, amino, halo, C_1-C_{10} haloalkyl, nitro, hydroxyl, ~~acetoamido~~acetamido, C_1-C_{10} alkoxy, and sulfonic acid or a salt thereof; or ~~R_4~~ R_5 ~~is~~ being benzodioxanemethyl, fururyl, L-propylalanylaminobenzyl, β-alanylaminobenzyl, T-BOC-β-alanylaminobenzyl, phenylamino, carbamoyl, phenoxy or C_1-C_{10} cycloalkyl; or R_5 ~~is~~ being a group of the following formula:



;

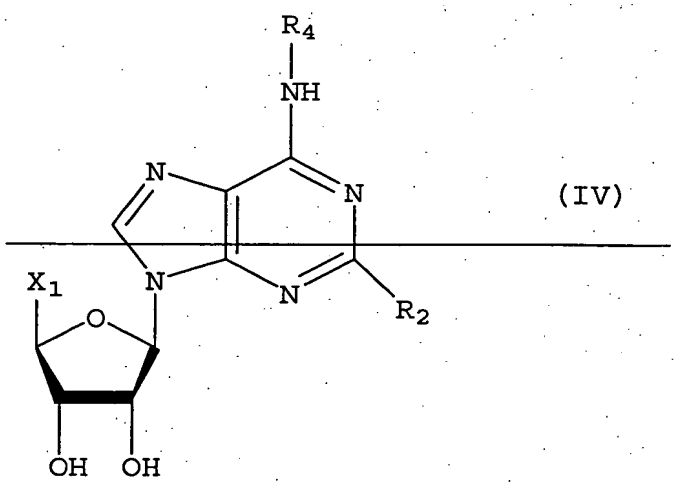
~~or a suitable salt of the compound defined above, e.g., a triethylammonium salt thereof; or~~

or, when R_4 is ~~a group selected from~~ alkyl, substituted alkyl, or aryl-NH-C(Z)-, then~~, R_4~~ R_5 being ~~is~~ selected from the group consisting of substituted or unsubstituted heteroaryl-NR^a-C(Z), heteroaryl-C(Z)-, alkaryl-NR^a-C(Z)-, alkaryl-C(Z)-, aryl-NR-

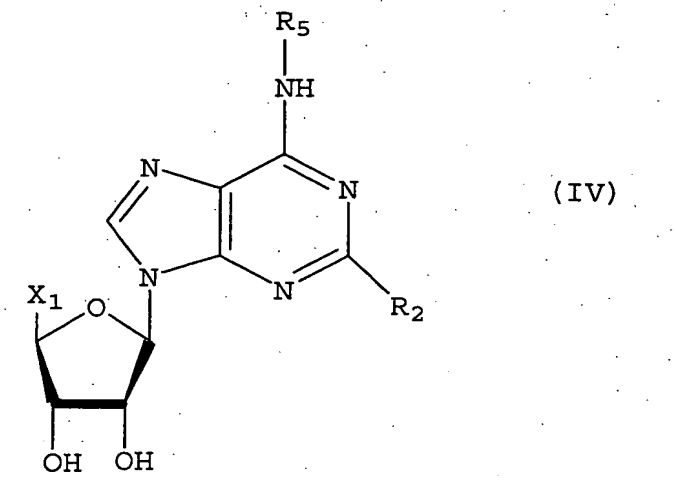
C(Z)- and aryl-C(Z); ~~wherein Z having the above defined meanings~~

or a suitable salt of the compound defined above.

47 (Currently Amended). A method according to Claim 46, wherein said active ingredient is a nucleoside derivative of the general formula (IV):



(IV)



(IV)

in which X_1, R_2 and ~~R_4~~ R_5 are as defined in Claim 46.

48 (Original). A method according to Claim 47, wherein said active ingredient is an N^6-benzyladenosine-5'-uronamide.

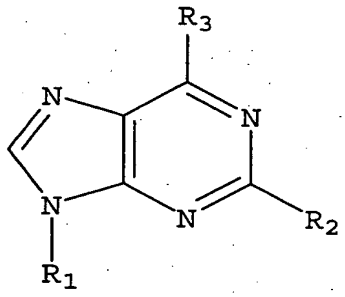
49 (Currently Amended). A method according to Claim 48, wherein said active ingredient is selected from the group consisting of N^6-2-(4-aminophenyl)ethyladenosine (APNEA), N^6-(4-amino-3- iodobenzyl)adenosine-5'-(N-methyluronamide) (AB-MECA) and 1-deoxy-1-{6-[({3-iodophenyl}methyl)amino]-9H-purine-9-yl}-N-methyl-β-D-ribofuranuronamide (IB-MECA) and 2-chloro-N^6-(~~2~~3-iodobenzyl)adenosine-5'-N-~~methly uronamide~~ methyluronamide (Cl-IB-MECA).

50 (Currently Amended). A method for treating cancer in a subject in need thereof, comprising administering to the subject an ~~effective~~ amount of an A3-selective adenosine A3 receptor agonist (~~A3Rag~~A3RAg), ~~the administration of the A3RAg yielding a dual effect~~ in a manner such that it exerts its prime effect through the adenosine A3 receptor, the amount being effective to both ~~inhibiting~~ selectively inhibit proliferation of cancer cells and ~~countering~~ to counter toxic side effects of chemotherapeutic drug treatment of the same subject.

51 (Currently Amended). A method according to Claim 50, wherein the ~~A3Rag~~ A3RAg synergizes with said drug to yield a stronger anti-tumor effect.

52 (Original). A method according to Claim 50, wherein the drug is administered orally.

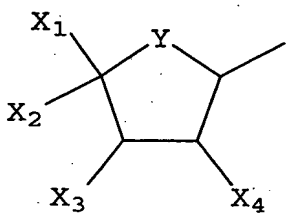
53 (Currently Amended). A method according to Claim 50, wherein said active ingredient is a nucleotide derivative of the following general formula (I):



(I)

wherein

- R_1 is C_1-C_{10} alkyl, C_1-C_{10} hydroxyalkyl, C_1-C_{10} carboxyalkyl or C_1-C_{10} cyanoalkyl or a group of the following general formula (II):



(II)

in which:

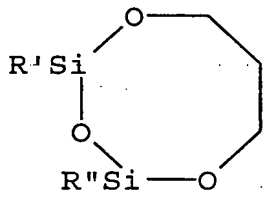
- Y is an oxygen~~,~~ or sulfur ~~of carbon atoms~~atom or CH_2;

- X_1 is H, C_1-C_{10} alkyl, $R^aR^bNC(=O)$- or HOR^c-, wherein R^a and R^b may be the same or different and are selected from the group consisting of hydrogen, C_1-C_{10} alkyl, amino, C_1-C_{10}

haloalkyl, C_1-C_{10} aminoalkyl, C_1-C_{10} BOC-aminoalkyl, and C_3-C_{10} cycloalkyl or are joined together to form a heterocyclic ring containing two to five carbon atoms, and R^c is selected from the group consisting of C_1-C_{10} alkyl, amino, C_1-C_{10} haloalkyl, C_1-C_{10} aminoalkyl, C_1-C_{10} BOC-aminoalkyl, and C_3-C_{10} cycloalkyl;

- X_2 is H, hydroxyl, C_1-C_{10} alkylamino, C_1-C_{10} alkylamido or C_1-C_{10} hydroxyalkyl;

- X_3 and X_4 each independently are hydrogen, hydroxyl, amino, amido, azido, halo, alkyl, alkoxy, carboxy, nitrilo, nitro, trifluoro, aryl, alkaryl, thio, thioester, thioether, -OCOPh, -OC(=S)OPh or both X_3 and X_4 are oxygen connected to >C=S to form a 5-membered ring, or X_2 and X_3 form the ring of formula (III):

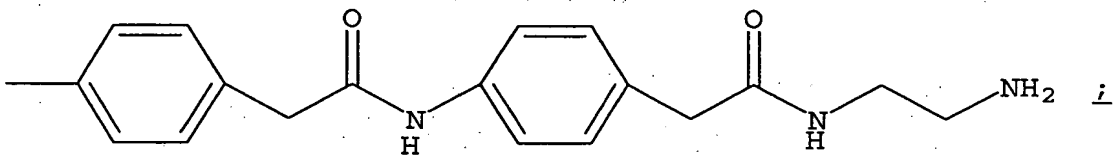


(III)

where R' and R'' are independently C_1-C_{10} alkyl;

- R_2 is selected from the group consisting of hydrogen, halo, C_1-C_{10} alkylether, amino, hydrazido, C_1-C_{10} alkylamino, C_1-C_{10} alkoxy, C_1-C_{10} thioalkoxy, pyridylthio, C_2-C_{10} alkenyl; C_2-C_{10} alkynyl, thio, and C_1-C_{10} alkylthio; and

- R_3 is a $-NR_4R_5$ group with R_4 being hydrogen, ~~or a group selected from~~ alkyl, substituted alkyl or aryl-NH-C(Z)-, with Z being O, S, or NR^a ~~with R^a having the above meanings~~, ~~and~~ And ~~R_5, where~~, when R_4 is hydrogen, ~~is~~ R_5 being selected from the group consisting of R- and S-1-phenylethyl, benzyl, phenylethyl or anilide groups, each said group being unsubstituted or substituted in one or more positions with a substituent selected from the group consisting of C_1-C_{10} alkyl, amino, halo, C_1-C_{10} haloalkyl, nitro, hydroxyl, ~~acetoamido~~acetamido, C_1-C_{10} alkoxy, and sulfonic acid or a salt thereof; or ~~R_4~~ R_5 ~~is~~ being benzodioxanemethyl, furuyl, L-propylalanylaminobenzyl, β-alanylaminobenzyl, T-BOC-β-alanylaminobenzyl, phenylamino, carbamoyl, phenoxy or C_1-C_{10} cycloalkyl; or R_5 ~~is~~ being a group of the following formula:



;

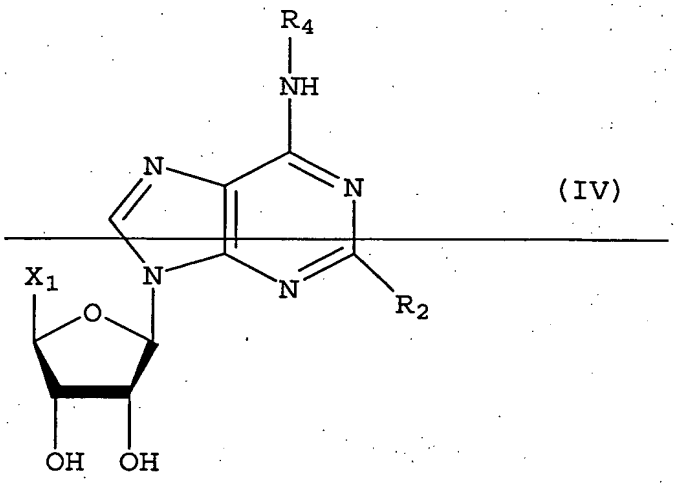
~~or a suitable salt of the compound defined above, e.g., a triethylammonium salt thereof; or~~

or, when R_4 is ~~a group selected from~~ alkyl, substituted alkyl, or aryl-NH-C(Z)-, then~~, R_4~~ R_5 being ~~is~~ selected from the group consisting of substituted or unsubstituted heteroaryl-NR^a-C(Z), heteroaryl-C(Z)-, alkaryl-NR^a-C(Z)-, alkaryl-C(Z)-, aryl-NR-

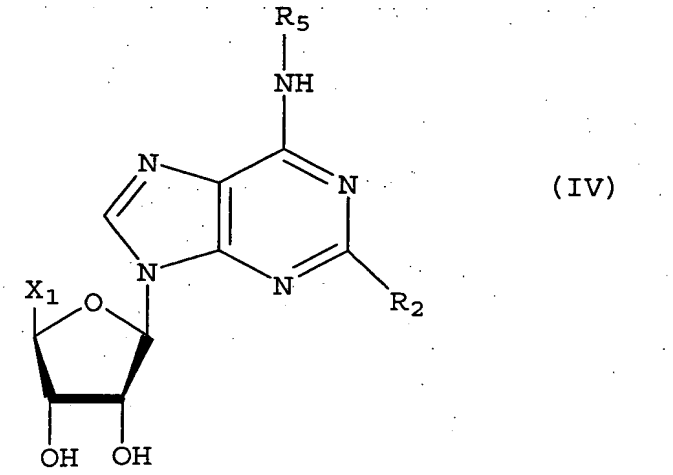
C(Z)- and aryl-C(Z); ~~wherein Z having the above defined meanings~~

or a suitable salt of the compound defined above.

54 (Currently Amended). A method according to Claim 53, wherein said active ingredient is a nucleoside derivative of the general formula (IV):



(IV)



(IV)

in which X_1, R_2 and ~~R_4~~ R_5 are as defined in Claim 53.

55 (Original). A method according to Claim 54, wherein said active ingredient is an N^6-benzyladenosine-5'-uronamide.

56 (Currently Amended). A method according to Claim 55, wherein said active ingredient is selected from the group consisting of N^6-2-(4-aminophenyl)ethyladenosine (APNEA), N^6-(4-amino-3- iodobenzyl)adenosine-5'-(N-methyluronamide) (AB-MECA) and 1-deoxy-1-{6-[({3-iodophenyl}methyl)amino]-9H-purine-9-yl}-N-methyl-β-D-ribofuranuronamide (IB-MECA) and 2-chloro-N^6-(~~2~~3-iodobenzyl)adenosine-5'-N-~~methly uronamide~~ methyluronamide (Cl-IB-MECA).

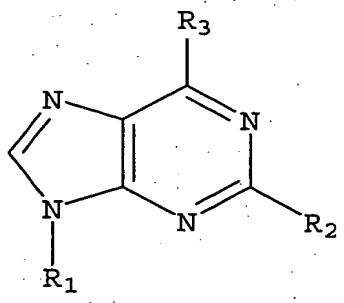
57 (New). A method for inhibiting abnormal cell proliferation in a subject, comprising administering to the subject an amount of an adenosine A3 receptor agonist in a manner such that it exerts its prime effect through the A3 adenosine receptor without essentially activating adenosine receptors other than the A3 adenosine receptor, the amount being effective to selectively inhibit abnormal cell proliferation.

58 (New). A method according to Claim 41, wherein said abnormal cell proliferation is the growth or proliferation of tumor cells.

59 (New). A method according to Claim 57, wherein the drug is administered orally.

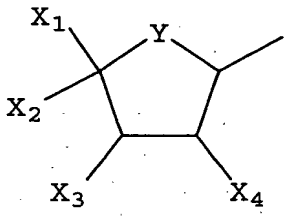
60 (New). A method according to Claim 57, wherein the drug is administered in combination with a chemotherapeutic drug.

61 (New). A method according to Claim 57, wherein the active ingredient is a nucleotide derivative of the following general formula (I):



(I)

wherein R_1 is C_1-C_{10} alkyl, C_1-C_{10} hydroxyalkyl, C_1-C_{10} carboxyalkyl or C_1-C_{10} cyanoalkyl or a group of the following general formula (II):



(II)

in which:

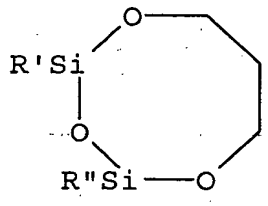
- Y is an oxygen or sulfur atom or CH_2;

- X_1 is H, C_1-C_{10} alkyl, $R^aR^bNC(=O)$- or HOR^c-, wherein R^a and R^b may be the same or different and are selected from the group consisting of hydrogen, C_1-C_{10} alkyl, amino, C_1-C_{10} haloalkyl, C_1-C_{10} aminoalkyl, C_1-C_{10} BOC-aminoalkyl, and C_3-C_{10}

cycloalkyl or are joined together to form a heterocyclic ring containing two to five carbon atoms, and R^c is selected from the group consisting of C_1-C_{10} alkyl, amino, C_1-C_{10} haloalkyl, C_1-C_{10} aminoalkyl, C_1-C_{10} BOC-aminoalkyl, and C_3-C_{10} cycloalkyl;

- X_2 is H, hydroxyl, C_1-C_{10} alkylamino, C_1-C_{10} alkylamido or C_1-C_{10} hydroxyalkyl;

- X_3 and X_4 each independently are hydrogen, hydroxyl, amino, amido, azido, halo, alkyl, alkoxy, carboxy, nitrilo, nitro, trifluoro, aryl, alkaryl, thio, thioester, thioether, -OCOPh, -OC(=S)OPh or both X_3 and X_4 are oxygen connected to >C=S to form a 5-membered ring, or X_2 and X_3 form the ring of formula (III):



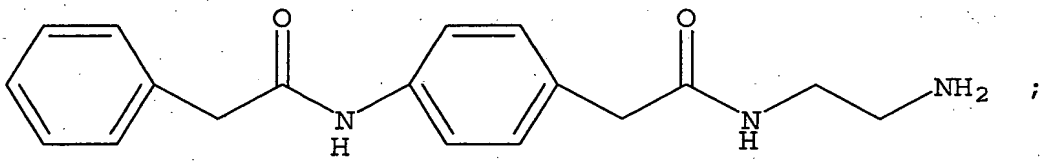
(III)

where R' and R'' are independently C_1-C_{10} alkyl;

- R_2 is selected from the group consisting of hydrogen, halo, C_1-C_{10} alkylether, amino, hydrazido, C_1-C_{10} alkylamino, C_1-C_{10} alkoxy, C_1-C_{10} thioalkoxy, pyridylthio, C_2-C_{10} alkenyl, C_2-C_{10} alkynyl, thio, and C_1-C_{10} alkylthio; and

- R_3 is a $-NR_4R_5$ group with R_4 being hydrogen, alkyl, substituted alkyl or aryl-NH-C(Z)-, with Z being O, S or NR^a, and, when R_4 is hydrogen, R_5 being selected from the group

consisting of R- and S-1-phenylethyl, benzyl, phenylethyl or anilide groups, each said group being unsubstituted or substituted in one or more positions with a substituent selected from the group consisting of C_1-C_{10} alkyl, amino, halo, C_1-C_{10} haloalkyl, nitro, hydroxyl, acetamido, C_1-C_{10} alkoxy, and sulfonic acid or a salt thereof; or R_5 being benzodioxanemethyl, fururyl, L-propylalanyl-aminobenzyl, β-alanylamino-benzyl, T-BOC-β-alanylaminobenzyl, phenylamino, carbamoyl, phenoxy or C_1-C_{10} cycloalkyl; or R_5 being a group of the following formula:

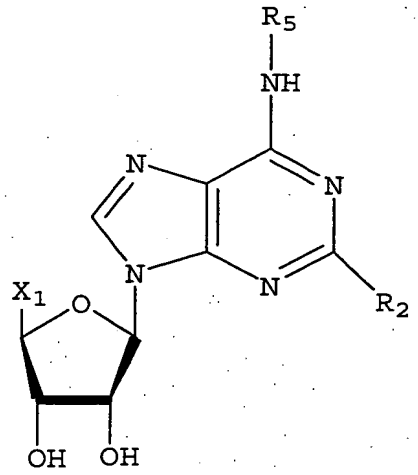


;

or, when R_4 is alkyl, substituted alkyl, or aryl-NH-C(Z)-, then R_5 is selected from the group consisting of substituted or unsubstituted heteroaryl-NR^a-C(Z)-, heteroaryl-C(Z)-, alkaryl-NR^a-C(Z)-, alkaryl-C(Z)-, aryl-NR-C(Z)- and aryl-C(Z)-;

or a suitable salt of said nucleotide derivative.

62 (New). A method according to Claim 61, wherein said active ingredient is a nucleoside derivative of the general formula (IV):



(IV)

in which X_1, R_2 and R_4 are as defined in Claim 61.

63 (New). A method according to Claim 62, wherein said active ingredient is an N6-benzyladenosine-5'-uronamide.

64 (New). A method according to Claim 63, wherein said active ingredient is selected from the group consisting of N^6-2-(4-aminophenyl)ethyladenosine (APNEA), N^6-(4-amino-3-iodobenzyl) adenosine-5'-(N-methyluronamide) (AB-MECA) and 1-deoxy-1-{6-[({3-iodophenyl} methyl)amino]-9H-purine-9-yl}-N-methyl-β-D-ribofuranuron-amide (IB-MECA) and 2-chloro-N^6-(3-iodobenzyl)-adenosine-5'-N-methly-uronamide (Cl-IB-MECA).

65 (New). A method according to Claim 57, wherein the active ingredient is administered at an amount less than 100 μg/Kg body weight.

66 (New). A method according to Claim 65, wherein the amount is less than 50 μg/Kg body weight.

67 (New). A method according to claim 15, wherein said active ingredient is selected from the group consisting of:

N^6-(3-iodobenzyl)-9-methyladenine;

N^6-(3-iodobenzyl)-9-hydroxyethyladenine;

R—N^6-(3-iodobenzyl)-9-(2,3-dihydroxypropyl)adenine;

S—N^6-(3-iodobenzyl)-9-(2,3-dihydroxypropyl)adenine;

N^6-(3-iodobenzyladenin-9-yl)acetic acid;

N^6-(3-iodobenzyl)-9-(3-cyanopropyl)adenine;

2-chloro-N^6-(3-iodobenzyl)-9-methyladenine;

2-amino-N^6-(3-iodobenzyl)-9-methyladenine;

2-hydrazido-N^6-(3-iodobenzyl)-9-methyladenine;

N^6-(3-iodobenzyl)-2-methylamino-9-methyladenine;

2-dimethylamino-N^6-(3-iodobenzyl)-9-methyladenine;

N^6-(3-iodobenzyl)-9-methyl-2-propylaminoadenine;

2-hexylamino-N^6-(3-iodobenzyl)-9-methyladenine;

N^6-(3-iodobenzyl)-2-methoxy-9-methyladenine;

N^6-(3-iodobenzyl)-9-methyl-2-methylthioadenine;

N^6-(3-iodobenzyl)-9-methyl-2-(4-pyridylthio)adenine;

(1S,2R,3S,4R)-4-(6-amino-2-phenylethylamino-9H-purin-9-yl)cyclopentane-1,2,3-triol;

(1S,2R,3S,4R)-4-(6-amino-2-chloro-9H-purin-9-yl) cyclopentane-1,2,3-triol;

(±)-9-[2α,3α-dihydroxy-4β-(N-methylcarbamoyl)cyclopent-1β-yl)]-N^6-(3-iodobenzyl)-adenine;

2-chloro-9-(2'-amino-2',3'-dideoxy-β-D-5'-methyl-arabino-furonamido)-N^6-(3-iodobenzyl)adenine;

2-chloro-9-(2',3'-dideoxy-2'-fluoro-β-D-5'-methyl-arabino-furonamido)-N^6-(3-iodobenzyl)adenine;

9-(2-acetyl-3-deoxy-β-D-5-methyl-ribofuronamido)-2-chloro-N^6(3-iodobenzyl)adenine;

2-chloro-9-(3-deoxy-2-methanesulfonyl-β-D-5-methyl-ribofuronamido)-N^6-(3-iodobenzyl)adenine;

2-chloro-9-(3-deoxy-β-D-5-methyl-ribofuronamido)-N^6-(3-iodobenzyl)adenine;

2-chloro-9-(3,5-1,1,3,3-tetraisopropyldisiloxyl-β-D-5-ribofuranosyl)-N^6-(3-iodobenzyl)adenine;

2-chloro-9-(2',3'-O-thiocarbonyl-β-D-5-methyl-ribofuronamido)-N^6-(3-iodobenzyl)adenine;

9-(2-phenoxythiocarbonyl-3-deoxy-β-D-5-methyl-ribofuronamido)-2-chloro-N^6-(3-iodobenzyl)adenine;

1-(6-benzylamino-9H-purin-9-yl)-1-deoxy-N,4-dimethyl-β-D-ribofuranosiduronamide;

2-chloro-9-(2,3-dideoxy-β-D-5-methyl-ribofuronamido)-N^6-benzyladenine;

2-chloro-9-(2'-azido-2',3'-dideoxy-β-D-5'-methyl-arabino-furonamido)-N^6-benzyladenine;

2-chloro-9-(β-D-erythrofuranoside)-N^6-(3-iodobenzyl)adenine;

N^6-(benzodioxanemethyl)adenosine;

1-(6-furfurylamino-9H-purin-9-yl)-1-deoxy-N-methyl-β-D-ribofuranosiduronamide;

N^6-[3-(L-prolylamino)benzyl]adenosine-5'-N-methyluronamide;

N^6-[3-(β-alanylamino)benzyl]adenosine-5'-N-methyluronamide;

N^6-[3-(N-T-Boc-β-alanylamino)benzyl]adenosine-5'-N-methyluronamide

6-(N'-phenylhydrazinyl)purine-9-β-ribofuranoside-5'-N-methyluronamide;

6-(O-phenylhydroxylamino)purine-9-β-ribofuranoside-5'-N-methyluronamide;

9-(β-D-2',3'-dideoxyerythrofuranosyl)-N^6-[(3-β-alanylamino)benzyl]adenosine;

9-(β-D-erythrofuranoside)-2-methylamino-N^6-(3-iodobenzyl)adenine;

2-chloro-N-(3-iodobenzyl)-9-(2-tetrahydrofuryl)-9H-purin-6-amine;

2-chloro-(2'-deoxy-6'-thio-L-arabinosyl)adenine;

2-chloro-(6'-thio-L-arabinosyl)adenine;

N^6-(4-biphenyl-carbonylamino)-adenosine-5'-N-ethyluronamide;

N^6-(2,4-dichlorobenzyl-carbonylamino)-adenosine-5'-N-ethyluronamide;

N^6-(4-methoxyphenyl-carbonylamino)-adenosine-5'-N-ethyluronamide;

N^6-(4-chlorophenyl-carbonylamino)-adenosine-5'-N-ethyluronamide;

N^6-(phenyl-carbonylamino)-adenosine-5'-N-ethyluronamide;

N^6-(benzylcarbamoylamino)-adenosine-5'-N-ethyluronamide;

N^6-(4-sulfonamido-phenylcarbamoyl)-adenosine-5'-N-ethyluronamide;

N^6-(4-acetyl-phenylcarbamoyl)-adenosine-5'-N-ethyluronamide;

N^6-((R)-α-phenylethylcarbamoyl)-adenosine-5'-N-ethyluronamide;

N^6-((S)-α-phenylethylcarbamoyl)-adenosine-5'-N-ethyluronamide;

N^6-(5-methyl-isoxazol-3-yl-carbamoyl)-adenosine-5'-N-ethyluronamide;

N^6-(1,3,4-thiadiazol-2-yl-carbamoyl)-adenosine-5'-N-ethyluronamide;

N^6-(4-n-propoxy-phenylcarbamoyl)-adenosine-5'-N-ethyluronamide;

N^6-bis-(4-nitrophenylcarbamoyl)-adenosine-5'-N-ethyluronamide; and

N^6-bis-(5-chloro-pyridin-2-yl-carbamoyl)-adenosine-5'-N-ethyluronamide.

68 (New). A method according to Claim 16, wherein said active ingredient is selected from the group consisting of those of formula (IV) in which:

X_1 is $R^aR^bNC(=O)$, wherein R^a and R^b may be the same or different and are selected from the group consisting of hydrogen, C_1-C_{10} alkyl, amino, C_1-C_{10} haloalkyl, C_1-C_{10} aminoalkyl, and C_3-C_{10} cycloalkyl; R_2 is selected from the group consisting of hydrogen, halo, C_1-C_{10} alkyoxy, amino, C_2-C_{10} alkenyl, and C_2-C_{10} alkynyl, and R_5 is selected from the group consisting of R- and S-1-phenylethyl, an unsubstituted benzyl group, and a benzyl group substituted in one or more positions with a substituent selected from the group consisting of C_1-C_{10} alkyl, amino, halo, C_1-C_{10} haloalkyl, nitro, hydroxy, acetamido, C_1-C_{10} alkoxy, and sulfo.

69 (New). A method according to claim 68, wherein said active ingredient is selected from the group consisting of those of formula (IV) in which:

R^a and R^b are the same or different and are selected from the group consisting of hydrogen and C_1-C_{10} alkyl, and R_2 is hydrogen or halo;

R^a is hydrogen, R_2 is hydrogen and R_5 is unsubstituted benzyl;

R^b is C_1-C_{10} alkyl or C_3-C_{10} cycloalkyl and R_5 in R- or S-1-phenylethyl or a benzyl substituted in one or more positions with a substituent selected from the group consisting of halo, amino, acetamido, C_1-C_{10} haloalkyl and sulfo, wherein the sulfo derivative is a salt;

R_2 is a C_2-C_{10} alkyne of the formula R^d-C=C- where R^d is a C_1-C_8 alkyl; or

R_2 is a halo, C_1-C_{10} alkylamino, or C_1-C_{10} alkylthio, R^a is hydrogen, R^b is C_1-C_{10} alkyl and R_5 is a substituted benzyl.

70 (New). A method according to Claim 15, wherein the active ingredient is in the form of a triethylammonium salt.

71 (New). A method according to claim 46, wherein said active ingredient is selected from the group consisting of:

N^6-(3-iodobenzyl)-9-methyladenine;

N^6-(3-iodobenzyl)-9-hydroxyethyladenine;

R—N^6-(3-iodobenzyl)-9-(2,3-dihydroxypropyl)adenine;

S—N^6-(3-iodobenzyl)-9-(2,3-dihydroxypropyl)adenine;

N^6-(3-iodobenzyladenin-9-yl)acetic acid;

N^6-(3-iodobenzyl)-9-(3-cyanopropyl)adenine;

2-chloro-N^6-(3-iodobenzyl)-9-methyladenine;

2-amino-N^6-(3-iodobenzyl)-9-methyladenine;

2-hydrazido-N^6-(3-iodobenzyl)-9-methyladenine;

N^6-(3-iodobenzyl)-2-methylamino-9-methyladenine;

2-dimethylamino-N^6-(3-iodobenzyl)-9-methyladenine;

N^6-(3-iodobenzyl)-9-methyl-2-propylaminoadenine;

2-hexylamino-N^6-(3-iodobenzyl)-9-methyladenine;

N^6-(3-iodobenzyl)-2-methoxy-9-methyladenine;

N^6-(3-iodobenzyl)-9-methyl-2-methylthioadenine;

N^6-(3-iodobenzyl)-9-methyl-2-(4-pyridylthio)adenine;

(1S,2R,3S,4R)-4-(6-amino-2-phenylethylamino-9H-purin-9-yl)cyclopentane-1,2,3-triol;

(1S,2R,3S,4R)-4-(6-amino-2-chloro-9H-purin-9-yl)cyclopentane-1,2,3-triol;

(±)-9-[2α,3α-dihydroxy-4β-(N-methylcarbamoyl)cyclopent-1β-yl)]-N^6-(3-iodobenzyl)-adenine;

2-chloro-9-(2'-amino-2',3'-dideoxy-β-D-5'-methyl-arabino-furonamido)-N^6-(3-iodobenzyl)adenine;

2-chloro-9-(2',3'-dideoxy-2'-fluoro-β-D-5'-methyl-arabino-furonamido)-N^6-(3-iodobenzyl)adenine;

9-(2-acetyl-3-deoxy-β-D-5-methyl-ribofuronamido)-2-chloro-N^6(3-iodobenzyl)adenine;

2-chloro-9-(3-deoxy-2-methanesulfonyl-β-D-5-methyl-ribofuronamido)-N^6-(3-iodobenzyl)adenine;

2-chloro-9-(3-deoxy-β-D-5-methyl-ribofuronamido)-N^6-(3-iodobenzyl)adenine;

2-chloro-9-(3,5-1,1,3,3-tetraisopropyldisiloxyl-β-D-5-ribofuranosyl)-N^6-(3-iodobenzyl)adenine;

2-chloro-9-(2',3'-O-thiocarbonyl-β-D-5-methyl-ribofuronamido)-N^6-(3-iodobenzyl)adenine;

9-(2-phenoxythiocarbonyl-3-deoxy-β-D-5-methyl-ribofuronamido)-2-chloro-N^6-(3-iodobenzyl)adenine;

1-(6-benzylamino-9H-purin-9-yl)-1-deoxy-N,4-dimethyl-β-D-ribofuranosiduronamide;

2-chloro-9-(2,3-dideoxy-β-D-5-methyl-ribofuronamido)-N^6-benzyladenine;

2-chloro-9-(2'-azido-2',3'-dideoxy-β-D-5'-methyl-arabino-furonamido)-N^6-benzyladenine;

2-chloro-9-(β-D-erythrofuranoside)-N^6-(3-iodobenzyl)adenine;

N^6-(benzodioxanemethyl)adenosine;

1-(6-furfurylamino-9H-purin-9-yl)-1-deoxy-N-methyl-β-D-ribofuranosiduronamide;

N^6-[3-(L-prolylamino)benzyl]adenosine-5'-N-methyluronamide;

N^6-[3-(β-alanylamino)benzyl]adenosine-5'-N-methyluronamide;

N^6-[3-(N-T-Boc-β-alanylamino)benzyl]adenosine-5'-N-methyluronamide

6-(N'-phenylhydrazinyl)purine-9-β-ribofuranoside-5'-N-methyluronamide;

6-(O-phenylhydroxylamino)purine-9-β-ribofuranoside-5'-N-methyluronamide;

9-(β-D-2',3'-dideoxyerythrofuranosyl)-N^6-[(3-β-alanylamino)benzyl]adenosine;

9-(β-D-erythrofuranoside)-2-methylamino-N^6-(3-iodobenzyl)adenine;

2-chloro-N-(3-iodobenzyl)-9-(2-tetrahydrofuryl)-9H-purin-6-amine;

2-chloro-(2'-deoxy-6'-thio-L-arabinosyl)adenine;

2-chloro-(6'-thio-L-arabinosyl)adenine;

N^6-(4-biphenyl-carbonylamino)-adenosine-5'-N-ethyluronamide;

N^6-(2,4-dichlorobenzyl-carbonylamino)-adenosine-5'-N-ethyluronamide;

N^6-(4-methoxyphenyl-carbonylamino)-adenosine-5'-N-ethyluronamide;

N^6-(4-chlorophenyl-carbonylamino)-adenosine-5'-N-ethyluronamide;

N^6-(phenyl-carbonylamino)-adenosine-5'-N-ethyluronamide;

N^6-(benzylcarbamoylamino)-adenosine-5'-N-ethyluronamide;

N^6-(4-sulfonamido-phenylcarbamoyl)-adenosine-5'-N-ethyluronamide;

N^6-(4-acetyl-phenylcarbamoyl)-adenosine-5'-N-ethyluronamide;

N^6-((R)-α-phenylethylcarbamoyl)-adenosine-5'-N-ethyluronamide;

N^6-((S)-α-phenylethylcarbamoyl)-adenosine-5'-N-ethyluronamide;

N^6-(5-methyl-isoxazol-3-yl-carbamoyl)-adenosine-5'-N-ethyluronamide;

N^6-(1,3,4-thiadiazol-2-yl-carbamoyl)-adenosine-5'-N-ethyluronamide;

N^6-(4-n-propoxy-phenylcarbamoyl)-adenosine-5'-N-ethyluronamide;

N^6-bis-(4-nitrophenylcarbamoyl)-adenosine-5'-N-ethyluronamide; and

N^6-bis-(5-chloro-pyridin-2-yl-carbamoyl)-adenosine-5'-N-ethyluronamide.

72 (New). A method according to claim 53, wherein said active ingredient is selected from the group consisting of:

N^6-(3-iodobenzyl)-9-methyladenine;

N^6-(3-iodobenzyl)-9-hydroxyethyladenine;

R—N^6-(3-iodobenzyl)-9-(2,3-dihydroxypropyl)adenine;

S—N^6-(3-iodobenzyl)-9-(2,3-dihydroxypropyl)adenine;

N^6-(3-iodobenzyladenin-9-yl)acetic acid;

N^6-(3-iodobenzyl)-9-(3-cyanopropyl)adenine;

2-chloro-N^6-(3-iodobenzyl)-9-methyladenine;

2-amino-N^6-(3-iodobenzyl)-9-methyladenine;

2-hydrazido-N^6-(3-iodobenzyl)-9-methyladenine;

N^6-(3-iodobenzyl)-2-methylamino-9-methyladenine;

2-dimethylamino-N^6-(3-iodobenzyl)-9-methyladenine;

N^6-(3-iodobenzyl)-9-methyl-2-propylaminoadenine;

2-hexylamino-N^6-(3-iodobenzyl)-9-methyladenine;

N^6-(3-iodobenzyl)-2-methoxy-9-methyladenine;

N^6-(3-iodobenzyl)-9-methyl-2-methylthioadenine;

N^6-(3-iodobenzyl)-9-methyl-2-(4-pyridylthio)adenine;

(1S,2R,3S,4R)-4-(6-amino-2-phenylethylamino-9H-purin-9-yl)cyclopentane-1,2,3-triol;

(1S,2R,3S,4R)-4-(6-amino-2-chloro-9H-purin-9-yl) cyclopentane-1,2,3-triol;

(±)-9-[2α,3α-dihydroxy-4β-(N-methylcarbamoyl)cyclopent-1β-yl)]-N^6-(3-iodobenzyl)-adenine;

2-chloro-9-(2'-amino-2',3'-dideoxy-β-D-5'-methyl-arabino-furonamido)-N^6-(3-iodobenzyl)adenine;

2-chloro-9-(2',3'-dideoxy-2'-fluoro-β-D-5'-methyl-arabino-furonamido)-N^6-(3-iodobenzyl)adenine;

9-(2-acetyl-3-deoxy-β-D-5-methyl-ribofuronamido)-2-chloro-N^6(3-iodobenzyl)adenine;

2-chloro-9-(3-deoxy-2-methanesulfonyl-β-D-5-methyl-ribofuronamido)-N^6-(3-iodobenzyl)adenine;

2-chloro-9-(3-deoxy-β-D-5-methyl-ribofuronamido)-N^6-(3-iodobenzyl)adenine;

2-chloro-9-(3,5-1,1,3,3-tetraisopropyldisiloxyl-β-D-5-ribofuranosyl)-N^6-(3-iodobenzyl)adenine;

2-chloro-9-(2',3'-O-thiocarbonyl-β-D-5-methyl-ribofuronamido)-N^6-(3-iodobenzyl)adenine;

9-(2-phenoxythiocarbonyl-3-deoxy-β-D-5-methyl-ribofuronamido)-2-chloro-N^6-(3-iodobenzyl)adenine;

1-(6-benzylamino-9H-purin-9-yl)-1-deoxy-N,4-dimethyl-β-D-ribofuranosiduronamide;

2-chloro-9-(2,3-dideoxy-β-D-5-methyl-ribofuronamido)-N^6-benzyladenine;

2-chloro-9-(2'-azido-2',3'-dideoxy-β-D-5'-methyl-arabino-furonamido)-N^6-benzyladenine;

2-chloro-9-(β-D-erythrofuranoside)-N^6-(3-iodobenzyl)adenine;

N^6-(benzodioxanemethyl)adenosine;

1-(6-furfurylamino-9H-purin-9-yl)-1-deoxy-N-methyl-β-D-ribofuranosiduronamide;

N^6-[3-(L-prolylamino)benzyl]adenosine-5'-N-methyluronamide;

N^6-[3-(β-alanylamino)benzyl]adenosine-5'-N-methyluronamide;

N^6-[3-(N-T-Boc-β-alanylamino)benzyl]adenosine-5'-N-methyluronamide

6-(N'-phenylhydrazinyl)purine-9-β-ribofuranoside-5'-N-methyluronamide;

6-(O-phenylhydroxylamino)purine-9-β-ribofuranoside-5'-N-methyluronamide;

9-(β-D-2',3'-dideoxyerythrofuranosyl)-N^6-[(3-β-alanylamino)benzyl]adenosine;

9-(β-D-erythrofuranoside)-2-methylamino-N^6-(3-iodobenzyl)adenine;

2-chloro-N-(3-iodobenzyl)-9-(2-tetrahydrofuryl)-9H-purin-6-amine;

2-chloro-(2'-deoxy-6'-thio-L-arabinosyl)adenine;

2-chloro-(6'-thio-L-arabinosyl)adenine;

N^6-(4-biphenyl-carbonylamino)-adenosine-5'-N-ethyluronamide;

N^6-(2,4-dichlorobenzyl-carbonylamino)-adenosine-5'-N-ethyluronamide;

N^6-(4-methoxyphenyl-carbonylamino)-adenosine-5'-N-ethyluronamide;

N^6-(4-chlorophenyl-carbonylamino)-adenosine-5'-N-ethyluronamide;

N^6-(phenyl-carbonylamino)-adenosine-5'-N-ethyluronamide;

N^6-(benzylcarbamoylamino)-adenosine-5'-N-ethyluronamide;

N^6-(4-sulfonamido-phenylcarbamoyl)-adenosine-5'-N-ethyluronamide;

N^6-(4-acetyl-phenylcarbamoyl)-adenosine-5'-N-ethyluronamide;

N^6-((R)-α-phenylethylcarbamoyl)-adenosine-5'-N-ethyluronamide;

N^6-((S)-α-phenylethylcarbamoyl)-adenosine-5'-N-ethyluronamide;

N^6-(5-methyl-isoxazol-3-yl-carbamoyl)-adenosine-5'-N-ethyluronamide;

N^6-(1,3,4-thiadiazol-2-yl-carbamoyl)-adenosine-5'-N-ethyluronamide;

N^6-(4-n-propoxy-phenylcarbamoyl)-adenosine-5'-N-ethyluronamide;

N^6-bis-(4-nitrophenylcarbamoyl)-adenosine-5'-N-ethyluronamide; and

N^6-bis-(5-chloro-pyridin-2-yl-carbamoyl)-adenosine-5'-N-ethyluronamide.

73 (New). A method according to Claim 46, wherein the active ingredient is in the form of a triethylammonium salt.

74 (New). A method according to Claim 53, wherein the active ingredient is in the form of a triethylammonium salt.

75 (New). A method according to Claim 47, wherein said active ingredient is selected from the group consisting of those of formula (IV) in which:

X_1 is $R^aR^bNC(=O)$, wherein R^a and R^b may be the same or different and are selected from the group consisting of hydrogen, C_1-C_{10} alkyl, amino, C_1-C_{10} haloalkyl, C_1-C_{10} aminoalkyl, and C_3-C_{10} cycloalkyl, R_2 is selected from the group consisting of hydrogen, halo, C_1-C_{10} alkyoxy, amino, C_2-C_{10} alkenyl, and C_2-C_{10} alkynyl, and R_4 is selected from the group consisting of R- and S-1-phenylethyl, an unsubstituted benzyl group, and a benzyl group substituted in one or more positions with a substituent selected from the group consisting of C_1-C_{10} alkyl, amino, halo, C_1-C_{10} haloalkyl, nitro, hydroxy, acetamido, C_1-C_{10} alkoxy, and sulfo.

76 (New). A method according to claim 76, wherein said active ingredient is selected from the group consisting of those of formula (IV) in which:

R^a and R^b are the same or different and are selected from the group consisting of hydrogen and C_1-C_{10} alkyl, and R_2 is hydrogen or halo;

R^a is hydrogen, R_2 is hydrogen and R_5 is unsubstituted benzyl;

R^b is C_1-C_{10} alkyl or C_3-C_{10} cycloalkyl and R_5 in R- or S-1-phenylethyl or a benzyl substituted in one or more positions with a substituent selected from the group consisting of halo, amino, acetamido, C_1-C_{10} haloalkyl and sulfo, wherein the sulfo derivative is a salt;

R_2 is a C_2-C_{10} alkyne of the formula R^d-C≡C- where R^d is a C_1-C_8 alkyl; or

R_2 is a halo, C_1-C_{10} alkylamino, or C_1-C_{10} alkylthio, R^a is hydrogen, R^b is C_1-C_{10} alkyl and R_5 is a substituted benzyl.

77 (New). A method according to Claim 54, wherein said active ingredient is selected from the group consisting of those of formula (IV) in which:

X_1 is $R^aR^bNC(=O)$, wherein R^a and R^b may be the same or different and are selected from the group consisting of hydrogen, C_1-C_{10} alkyl, amino, C_1-C_{10} haloalkyl, C_1-C_{10} aminoalkyl, and C_3-C_{10} cycloalkyl, R_2 is selected from the group consisting of hydrogen, halo, C_1-C_{10} alkyoxy, amino, C_2-C_{10} alkenyl, and C_2-C_{10} alkynyl, and R_4 is selected from the group consisting of R- and S-1-phenylethyl, an unsubstituted benzyl group, and a benzyl group substituted in one or more positions with a substituent selected from the group consisting of C_1-C_{10} alkyl, amino, halo, C_1-C_{10} haloalkyl, nitro, hydroxy, acetamido, C_1-C_{10} alkoxy, and sulfo.

78 (New). A method according to claim 78, wherein said active ingredient is selected from the group consisting of those of formula (IV) in which:

R^a and R^b are the same or different and are selected from the group consisting of hydrogen and C_1-C_{10} alkyl, and R_2 is hydrogen or halo;

R^a is hydrogen, R_2 is hydrogen and R_5 is unsubstituted benzyl;

R^b is C_1-C_{10} alkyl or C_3-C_{10} cycloalkyl and R_5 in R- or S-1-phenylethyl or a benzyl substituted in one or more positions with a substituent selected from the group consisting of halo, amino, acetamido, C_1-C_{10} haloalkyl and sulfo, wherein the sulfo derivative is a salt;

R_2 is a C_2-C_{10} alkyne of the formula R^d-C=C- where R^d is a C_1-C_8 alkyl; or

R_2 is a halo, C_1-C_{10} alkylamino, or C_1-C_{10} alkylthio, R^a is hydrogen, R^b is C_1-C_{10} alkyl and R_5 is a substituted benzyl.

79 (New). A method for inhibiting abnormal cell proliferation in a subject in need thereof, comprising administering to the subject an adenosine A3 receptor agonist (A3RAg) in an amount of less than 100 μg/Kg body weight.

80 (New). A method according to Claim 79 wherein the amount of the A3RAg is less than 50 μg/kg body weight.